

Title (en)

AUTOMATIC CONTROL FOR ELECTROSURGICAL GENERATOR ENERGY

Title (de)

AUTOMATISCHE STEUERUNG FÜR ELEKTROCHIRURGISCHEN ENERGIEGENERATOR

Title (fr)

COMMANDE AUTOMATIQUE DE L'ENERGIE DANS UN GENERATEUR ELECTROCHIRURGICAL

Publication

EP 0722297 A1 19960724 (EN)

Application

EP 94924977 A 19940909

Priority

- IB 9400273 W 19940909
- US 13294093 A 19931007

Abstract (en)

[origin: WO9509577A1] An electrosurgical generator (11) control responds to tissue impedance between active and return electrodes (12 and 13) during desiccation. Active and return generator leads supply energy (25) and a user control (16) sets the level of energy (25) desired for electrosurgery. Voltage and current sensing circuits (19) respond to high frequency energy (25) in the leads to signal voltage and current in the leads. A multiplier (21) receives the signals to calculate power. A clock (23) sets units of time during which power calculation. An integrator (24) calculates the energy (25) supplied through the leads per time unit. The user control (16) sets a reference signal (26) for the energy (25) level desired. A correlation circuit (27) receives the energy (30) calculations from the integrator (24) and the reference signal (26) and provides a feedback signal (28) to indicate when the energy (25) calculation equals the user control (16) setting for altering the generator supply of energy (25) to the leads. A counter (38) assesses the number of packets of energy (40) delivered against a setting of the user control (16) and the total energy (25) delivered is a function of multiple packet sequences containing pulses wherein the time between the pulses is controlled by the user control (16). The method uses the automatic control (10) in measuring impedance during tissue desiccation and altering the output of an electrosurgical generator (11).

IPC 1-7

A61B 17/39

IPC 8 full level

A61B 18/12 (2006.01)

CPC (source: EP US)

A61B 18/1206 (2013.01 - EP US); **A61B 2018/00702** (2013.01 - EP US); **A61B 2018/00755** (2013.01 - EP US); **A61B 2018/00761** (2013.01 - EP US); **A61B 2018/00779** (2013.01 - EP US); **A61B 2018/00827** (2013.01 - EP US); **A61B 2018/00875** (2013.01 - EP US); **A61B 2018/00892** (2013.01 - EP US)

Citation (search report)

See references of WO 9509577A1

Designated contracting state (EPC)

BE DE DK FR GB IT LU NL SE

DOCDB simple family (publication)

WO 9509577 A1 19950413; AU 7507294 A 19950501; CA 2171747 A1 19950413; DE 9490465 U1 19960620; EP 0722297 A1 19960724; FI 961530 A0 19960404; FI 961530 A 19960404; JP 2739717 B2 19980415; JP H08510946 A 19961119; US 6210403 B1 20010403

DOCDB simple family (application)

IB 9400273 W 19940909; AU 7507294 A 19940909; CA 2171747 A 19940909; DE 9490465 U 19940909; EP 94924977 A 19940909; FI 961530 A 19960404; JP 51070695 A 19940909; US 13294093 A 19931007